



TESTIMONY

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PRACTICES TO CONSIDER FOR DATA CENTER REGULATION IN ST. LOUIS COUNTY

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Testimony Before the Planning Commission of St. Louis County

TO THE HONORABLE MEMBERS OF THIS COMMITTEE

Thank you for the opportunity to testify. My name is Avery Frank. I am a senior analyst at the Show-Me Institute, a nonprofit, nonpartisan, Missouri-based think tank that advances sensible, well-researched, free-market solutions to state and local policy issues. The ideas presented here are my own and are offered in consideration of data centers in Missouri.

INTRODUCTION

Data centers have quickly become one of the most debated forms of economic development in the country. Questions about electricity rates, water usage, artificial intelligence, and growth have left many local officials uncertain about how to respond.

This testimony is not in favor of data centers or against them.

This testimony is about the facts and practices that should be considered when evaluating proposals for data centers in St. Louis County.

The National Context

In its simplest form, a data center is a physical facility that houses and runs large computer systems. A data center typically contains multiple computer servers, data storage devices, and network equipment that can provide IT infrastructure service for organizations to store, manage, process, and transmit large amounts of data.¹

Data centers have been operating for a number of years, with cloud storage, networks, and more. But in recent years, intense computation tasks for AI have led to the construction of hyperscale data centers: which, at a minimum, have a power draw exceeding 100 megawatts (MW).²

For context, 100 MW is roughly equivalent to the electricity needs of 80,000 households. Some hyperscale data centers have power draws of 1000 MW: equivalent to 800,000 households.³

According to a report to U.S. Congress, roughly one-half or greater of a data center's electric power demand stems directly from the operation of electronic IT equipment. The rest is primarily for cooling.⁴

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In April 2024, Goldman Sachs forecast that data centers would rise from 2.5 percent to 8 percent of all U.S. electricity usage by 2030.⁵

However, Google recently reported a 33-fold reduction in energy usage for AI queries in a single year. History demonstrates how quickly computing efficiency can improve. Computing power that once required warehouse-scale infrastructure can now fit into devices carried in a pocket or worn on a wrist.⁶

The uncertainty about future energy demand is important. Any data center regulations or incentives need to consider how quickly technology may change, and policymakers should be aware of the limits of government planning in such an unpredictable environment.

This goes for electricity demand and also for water usage.

A 2025 study from the International Energy Agency (IEA) estimated that a 100-MW U.S. data center may consume roughly 190,000 gallons of water per day (averaged across various cooling strategies), which is roughly equivalent to the demand from 2,600 households.⁷

When adding in indirect water use (such as water use from power plants generating electricity for data centers) that total climbs up to 530,000 gallons per day or the equivalent of 6,500 households.⁸

Some data centers rely on air-cooled systems, while others rely on water or liquid-cooled systems. Those that use water or liquid-cooled systems can reduce electricity usage because cooling is a major driver of overall power demand in data centers. But, they also require much higher water usage. The electricity versus water trade-off needs to be considered based on landscape and resource availability. Innovation in direct-to-chip liquid cooling systems may significantly improve cooling efficiency and reduce electricity and water demands for future data centers.

A major concern with water usage is environmental. Most of the wastewater produced at a data center is from blowdown, which is an operation that uses water to flush solid material left behind from water evaporating.⁹

Blowdown is manageable and can be contained under normal circumstances, but it can be problematic if

wastewater treatment facilities are overwhelmed by a vast increase in wastewater coming from new data centers.

The remaining national concerns (sound, housing values, artificial intelligence, landscape aesthetics) are related to traditional anti-development arguments, which I assume you are familiar with so I will not discuss them here.

The Missouri Context

There is state-specific context to be considered when evaluating data center projects in St. Louis County.

In 2025, Senate Bill 4, which included a large-load tariff for projects with a power draw greater than 100 MW, was passed. After its passage, the Missouri Public Service Commission (MPSC), broadened the tariff to include projects over 75 MW.¹⁰

The intent of the tariff is to require that large-load customers “pay for their share of costs” associated with serving them. However, some uncertainty remained regarding how portions of the law should be interpreted. Phrases such as “any unjust or unreasonable costs arising from the service to such customers” or “pay their share of costs” are vague.

A recent hearing at a St. Louis Board of Alderman committee meeting brought some needed clarity to the matter. Ameren’s manager of economic development stated that owners of large-load facilities must pay all costs associated with connecting to Ameren’s power grid. This would seem to include costs related to high-voltage transmission lines, switchyards, transformers, substations, and more transmission and distribution projects needed to connect to the grid.¹¹

Importantly the manager also clarified that:

“All Ameren customers, including residential customers, pay for expanding the grid through building new power plants through rate increases, and that may be needed to accommodate large-load customers.”¹²

This means that average ratepayers would likely pay for new power plants constructed to meet data center demand

if Ameren or Evergy does indeed need new power plants. But this is also in question as major technology companies (Amazon, Google, Meta, Microsoft, etc.) recently met with President Trump and signed the “Ratepayer Protection Pledge” to supply and pay for their own power for their AI data centers. It remains to be seen how it will be implemented in practice.¹³

Nevertheless, a single data center project in St. Louis County may not independently require construction of a new power plant unless its energy needs approached the upper range of hyperscale development (about 1,000 MW, as stated above). For reference, the Callaway Nuclear Energy Center, one of the most powerful power plants in the state, has a rated capacity of 1,190 MW.¹⁴ However, multiple large projects collectively could necessitate new power plants, which would likely place upward pressure on electricity rates

This demand growth is entirely possible as our state is an attractive destination for data centers.

In his State of the State Address, Governor Kehoe declared that Missouri is “open for business” for artificial intelligence.¹⁵ And Missouri has a lot of advantages for potential developers: to name a few,

- Central geography
- Abundance of water
- Low electricity rates (in comparison to the rest of the country)
- Existing state sales tax exemption for data centers
- Strong engineering and technical sectors
- A strong desire for new growth and investment
- Openness to next-generation nuclear technology

Looking forward, Missouri should evaluate how data centers are assessed and taxed with a view toward eliminating city-level competition through the use of tax incentives. Missouri should also consider allowing private electricity grids—also known as consumer regulated electricity (CRE) —statewide to help meet the data center moment. This could help protect ratepayers from risk,

accelerate capacity buildout and innovation for both data centers and power plants, and alleviate pressure on the government to meet every aspect of this complex challenge. New Hampshire became the first state to allow CRE, and the U.S. Congress is considering a federal CRE policy.¹⁶

The Local Context

St. Louis County and the St. Louis region have a history of producing engineering talent. There are high-performing schools all across the county, from Clayton and Ladue to the STEAM Academies in Ferguson-Florissant.

The region also has access to substantial water resources, which remain highly valuable to many data center developers. In addition, the area has several brownfield sites, or former sites of heavy industry—such as the Emerson Campus in Ferguson. These places are suitable for retrofitting to support a new heavy industry like a data center, and in most cases are already zoned for industrial use.¹⁷

What St. Louis County Should Consider

With the national, state, and local contexts in mind, several best practices emerge for data center policy in St. Louis County.

First: While data centers will have infrastructure requirements, they can also provide a major benefit: significant tax revenue.¹⁸ In fact, the addition of a data center could lead to a property tax rate cut for all residents. For this reason, large tax incentive packages for data center projects are especially misguided.

Beyond the digital services they support, the primary local benefit data centers provide is tax revenue. Unlike many other industries, data centers generally do not create large numbers of long-term jobs, generate substantial secondary development, or attract tourists.

If local governments heavily reduce tax collections through incentive packages, they ask residents to absorb many of the significant costs while receiving little benefit.

For that reason, tax revenue which is then used for county-wide tax cuts should remain the central public benefit expected from data center projects in St. Louis County.

Data center projects in St. Louis County should be evaluated case by case. One project may strain wastewater treatment too strongly. Another may use too much electricity. Still another location might be able to support a more beneficial industry to the area (without subsidies).

A moratorium on data center construction would be counterproductive. These data centers, as shown, do not bring as significant a downside as many claim. However, there should be a permanent “moratorium” on tax incentive packages in St. Louis County.

If the county resists handing out tax incentives, ensures additional revenues turn into broad tax cuts, leverages existing assets and strengths, and is patient, then data centers are an opportunity rather than a threat. There is a plethora of data center developers scrambling to find suitable locations.¹⁹ A subsidy-free data center project in St. Louis County will likely be of great benefit to the community if all of this is kept in mind.

NOTES

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